CORRES. CONTROL
INCOMING LTR NO.

5322 RF 93

DUE DATE

ACTION DIST.	LTR	ENC
BENEDETTI, R.L.		
BENJAMIN, A.		
BERMAN, H.S.		
CARNIVAL, G.J.		
COPP, R.D.		
CORDOVA, R.C.		
DAVIS, J.G.		
FERRERA, D.W.		
FRANZ, W.A.		
HANNI, B.J.		
HEALY, T.J.		
HEDAHL, T.G.	X	X
HILBIG, J.G.		
HUTCHINS, N.M.	X	X
KIRBY, W.A.		
KUESTER, A.W.		
MAHAFFEY, J.W.		
MANN, R.P.		
MARX, G.E.		
McKENNA, F.G.		
MORGAN, R.V.		
PIZZUTO, V.M.		
POTTER, G.L.		
SANDLIN, N.B.		
SATTERWHITE, D.G.		
SCHUBERT, A.L.	X	X
SETLOCK, G.H.		
SULLIVAN, M.T.		
SWANSON, E.R.		
WILKINSON, R.B.		
WILSON, J.M.		
Broussard MC	X	X
Vess T	X	X
Demos N	X	X

CORRES CONTROL	X	X
PATS/T130G		
ADMN RECORD/080	X	X

Reviewed for Addressee
Corres. Control RFP

12/20/93 CM
DATE BY

Ref Ltr. #

DOE ORDER # 5482.1

Department of Energy

ROCKY FLATS OFFICE
P.O. BOX 928
GOLDEN, COLORADO 80402-0928

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DEC 17 1993

EG&G
ROCKY FLATS PLANT
CORRESPONDENCE CONTROL

93-DOE-13662

DEC 1993
RECEIVED

Frederick R. Dowsett, Ph.D.
Colorado Department of Health
Hazardous Materials and Waste Management Division
HHMWMD-HWC-B2
4300 Cherry Creek Drive South
Denver Colorado 80601

Dear Dr. Dowsett:

Enclosed is the Resource Conservation and Recovery Act (RCRA) Contingency Plan Implementation Report No. 93-010, which documents the status and information concerning the release of approximately 10 gallons of hazardous waste from Operable Unit 2. The release occurred at approximately 2:30 PM., December 4, 1993. The Colorado Department of Health was notified by telephone and the Environmental Protection Agency was notified by facsimile on December 7,1993.

If you have any questions regarding this subject, please contact the Environmental Restoration Facilities Manager, Marcella Broussard, at 966-8517.

Sincerely,

Thomas E. Lukow, Director
Waste Program Division

Enclosures

cc w/Enclosure:
D. Maxwell, EPA
B. Brainard-Jordan, OC, RFO.
T. Lukow, WPD, RFO
P. Cote, EMB, RFO
D. Grosek, EMB, RFO
W. Seyfert, EMB, RFO
M. C. Broussard, EG&G
T. Hedhal, EG&G
T. Vess, EG&G
A. Schubert, EG&G
N. Demos, EG&G

INFO
Steger

Best Available Copy

ADMIN RECORD
BZ-BZ-A-00259

EG&G ROCKY FLATS

EG&G ROCKY FLATS, INC.
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

December 16, 1993

93-RF-15209

T. E. Lukow, Director
Waste Programs Division
DOE, RFO

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CONTINGENCY PLAN IMPLEMENTATION REPORT (CPIR) NO. 93-010 - TGH-665-93

Enclosed is a draft letter to the Colorado Department of Health (CDH) to transmit RCRA CPIR No. 93-010, also enclosed. The report outlines the events associated with the release of surface water potentially contaminated with hazardous waste to the environment from the transfer piping associated with Operable Unit (OU) No. 2.

This report should be delivered to CDH by no later than December 19, 1993 as required by 6 CCR 1007-3 Section 265.56(j)(1-7). The repairs to the system have been completed and the system was placed back into operation. A release notification to the National Response Center was not required because analytical data was available and a reportable quantity of the "F-listed" constituents was not released.

If you have any questions regarding this matter please call M. C. Broussard at extension 8517, or E. M. Pasic at extension 2297.

T. G. Hedahl, Associate General Manager
Environmental and Waste Management

EMP:kam

Orig. and 1 cc - T. E. Lukow

Enclosures:
As Stated (2)

RCRA CONTINGENCY PLAN
Implementation Report No. 93-010

RCRA CONTINGENCY PLAN
IMPLEMENTATION REPORT
ROCKY FLATS PLANT
EPA ID NUMBER CO7890010526

This report is made in compliance with the requirements of 6 CCR 1007-3, Parts 264.56 (j) and 265.56 (j) for a written report within 15 days of the implementation of the RCRA Contingency Plan. The requirements for this are given below and will be addressed in the order listed, excerpted from 6 CCR 1007-3, Parts 264.56 and 265.56:

"(j)...Within 15 days after the incident, he must submit a written report on the incident to the department. The report must include:

(1) Name, address, and telephone number of the owner or operator
(2) Name, address, and telephone number of the facility
(3) Date, time, and type of incident (fire, explosion)
(4) Name and quantity of material(s) involved
(5) The extent of injuries, if any
(6) An assessment of actual or potential hazards to human health and the environment, where this is applicable; and
(7) Estimated quantity and disposition of recovered material resulted from the incident."

---

(1) NAME, ADDRESS AND TELEPHONE NUMBER OF THE OWNER OF THE FACILITY:

United States Department of Energy
Rocky Flats Plant
Post Office Box 928
Golden, Colorado 80402
(303) 966-2025

Facility Contact:
M. N. Silverman, Manager

(2) NAME, ADDRESS AND TELEPHONE NUMBER OF THE FACILITY:

U.S. Department of Energy
Rock Flats Plant
Post Office Box 928
Golden, Colorado 80402
(303) 966-2025

(3) DATE, TIME, AND TYPE OF INCIDENT:

A. SUMMARY:

The RCRA Contingency Plan was implemented on December 4 ,1993, due to a release to the environment of approximately 10 gallons (thirty to forty gallons to secondary containment) surface water potentially contaminated with hazardous waste collected from Walnut Creek. The water is diverted from the creek as part of a treatability study for OU No. 2. The contaminated water is treated in a Chemical Precipitation/Microfiltration/Granular Activated Carbon System. The treated water is then returned to the creek.

The release occurred at 2:30 pm, Saturday, December 4, 1993. A subcontractor employee discovered the release from an influent water line in response to an alarm signaling that a release had occurred. The contractor noticed a slow leak coming from a connection in the secondary containment portion of the influent pipeline. The primary pipeline was found to be leaking from a hole in the line. The estimated amount of material released to the environment is 10 gallons by visual determination of the size of the wetted area. Constituents found in the contaminated water support the fact that the contaminated water is an "F001" listed hazardous waste.

An emergency work package was initiated to repair the line. The line was repaired and returned to service on Wednesday, December 8, 1993. The released material was not directly recoverable because it soaked into the soil. Based on previous analytical results of the contaminated water, the immediate removal of the affected soil is not required because the contaminant concentrations in the soil should not pose an unacceptable risk to human health and the environment. This RCRA CPIR will be addressed in the quarterly update of the Historical Release Report.

B. SYSTEM DESCRIPTION:

The system involved with this incident was originally installed in May 1991. The influent line is approximately 1000 feet from the inlet at the creek to the primary tank system. The line has secondary containment and is equipped with electronic sensors at the low points of the line to signal a leak or release of material into the secondary containment system. The line leads into the system that consists of numerous tanks, filters and treatment columns. (See figure 1 for a diagram of the treatment system.) The pipeline is a partial diversion system for the transfer of creek water to the treatment system. The pipeline is insulated with styrofoam and has a heat trace for winter operation. This OU No. 2 treatment facility is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Interim Measure/Interim Remedial Action (IM/IRA) facility and is mandated by the Interagency Agreement (IAG). No Individual Hazardous Substance Site (IHSS) was involved in this incident.

C. DESCRIPTION OF INCIDENT:

A release of potentially contaminated water from an influent pipe system leading from Walnut Creek to the treatment system occurred due to a hole in the primary line. The release was discovered at 2:30 p.m. on Saturday, December 4, 1993. A subcontractor employee discovered the release from an influent water line in response to an alarm signaling that a release had occurred. The line in question has secondary containment. The line was found to be leaking due to a separation of two pipes that make up the secondary pipeline. The pumps was immediately shut down and contractor personnel visually inspected the line for a release. The point of the release was discovered under a road culvert.

D. CORRECTIVE ACTION:

The pumps were de-energized immediately after the leak was discovered. Subcontractor personnel immediately began repairs on the pipe. An emergency work package was completed to temporarily repair the line. The incident was not reported to the Emergency Operations Center (EOC), or the Shift Superintendent (the Rocky Flats Plant RCRA Emergency Coordinator) at the time of the incident. A report was made to the EOC on Monday December 6, 1993, at approximately 4:30 pm. The pipeline was repaired and the system was back in operation on December 8, 1993. The pump was re-energized and the system was returned to normal operation. A letter has been written and will be sent to the responsible supervisors outlining release response and reporting requirements at the Rocky Flats Plant. Plans are being made to permanently replace the pipeline to minimize the likelihood of a reoccurrence of a release from this system.

(4) EQUIPMENT STATUS:

The system was repaired and returned to normal operation on December 8, 1993. The daily inspections of the pipeline are continuing.

(5) NAME AND QUANTITY OF MATERIAL INVOLVED:

Due to the fact that the water in Walnut Creek can contain hazardous waste, a determination has been made by the EG&G Rocky Flats Plant, that the "contained in rule" is applicable, and the water entering from the OU2 treatment system contains "F001" listed hazardous waste.

Approximately thirty to forty gallons of hazardous waste was released from the inlet pipe transfer system to secondary containment and approximately 10 gallons was estimated to have been released to the environment. Estimation was done by the area wetted by the release. The water is collected from SW-59, SW-61 and SW-132 [most of which is surface runoff from within the Protected Area (PA)]. The potentially contaminated water is treated for removal of volatile organic, soluble metals, and radioactive constituents. The water is sampled weekly for characterization. F001 listed hazardous waste constituents have been detected in trace amounts in the influent water. The most recent sample date from the time of the incident was conducted December 8, 1993. The F001 listed contaminants that have been detected are carbon tetrachloride, methylene chloride, trichloroethene and tetrachloroethene. Additionally, chromium and 1,2-dichloroethene, chloroform, 1,1-dichloroethane, and 1,1-dichloroethene have been detected in the influent water but not at levels that would make the water a characteristic hazardous waste. The chemical 1,2 dichlorethylene has also been detected in the influent. Other contaminants that have been tested for but not found are acetone,vinyl chloride, barium, cadmium, lead and mercury. These analytical results come from over 100 sampling events that took place from May 29, 1991, to December 8, 1993 (refer to Tables 1 and 2). The series of samples were taken to determine the constituents that may be present in the water. The water is also sampled weekly on a continuing basis. The result of previous sampling are listed in Table 1 and 2.

(6) EXTENT OF INJURIES:

There were no injuries. During the repairs to the pipeline, the contractor personnel wore the proper protective clothing.

(7) AN ASSESSMENT OF ACTUAL OR POTENTIAL THREAT TO HUMAN HEALTH AND ENVIRONMENT:

The released material was not directly recoverable because it soaked into the soil. Based on the analytical results, the immediate removal of the affected soil is not required because the contaminant concentrations in the soil do not pose an unacceptable risk to human health and the environment. This RCRA Contingency Plan Implementation Report will be addressed in the quarterly update of the Historical Release Report.

(8) ESTIMATE QUANTITY AND DISPOSITION OF RECOVERED MATERIAL THAT RESULTED FROM THE INCIDENT:

None of the material was recovered.

TABLE 1

Baseline Data for Influent Dissolved and Total Metals (mg/L) **

Analyte	Highest Value Detected (mg/L)	CRDL (mg/L)	RCRA TCLP Regulatory Limit (mg/L)
Barium (D005)	Below Detection Limit	0.200	100.0
Cadmium (D006)	Below Detection Limit	0.005	1.0
Chromium (D007)	.015	0.010	5.0
Lead (D008)	Below Detection Limit	0.003	5.0
Mercury (D009)	Below Detection Limit	0.0	0.2

CRDL - Contract Required Detection Limit
TCLP - Toxicity Characteristic Leaching Procedure

TABLE 2
VOLATILE ORGANIC COMPOUNDS *

Analyte	Highest/Average Value Detected (mg/L)	SDWA MCLs (mg/L)	RCRA TCLP Regulatory Limit (mg/L)
Trichlorethene (F001) (D040)	0.051/0.016	0.005	0.50
1,2-Dichloroethene (D028)	0.043/0.016	0.005	0.50
Carbon tetrachloride (F001) (D019)	0.082/0.024	0.005	0.50
Tetrachloroethylene (F001) (D039)	0.052/0.014	0.005	0.70
1,2-dichloroethylene (U079)	0.038/0.017	0.070	-
Methylene Chloride (F001)	0.001/0.0002	-	-
1,1-Dichloroethene (D029) (U078)	0.003/0.0006	0.007	0.07
Chloroform (D022)	0.012/0.004	-	6.00

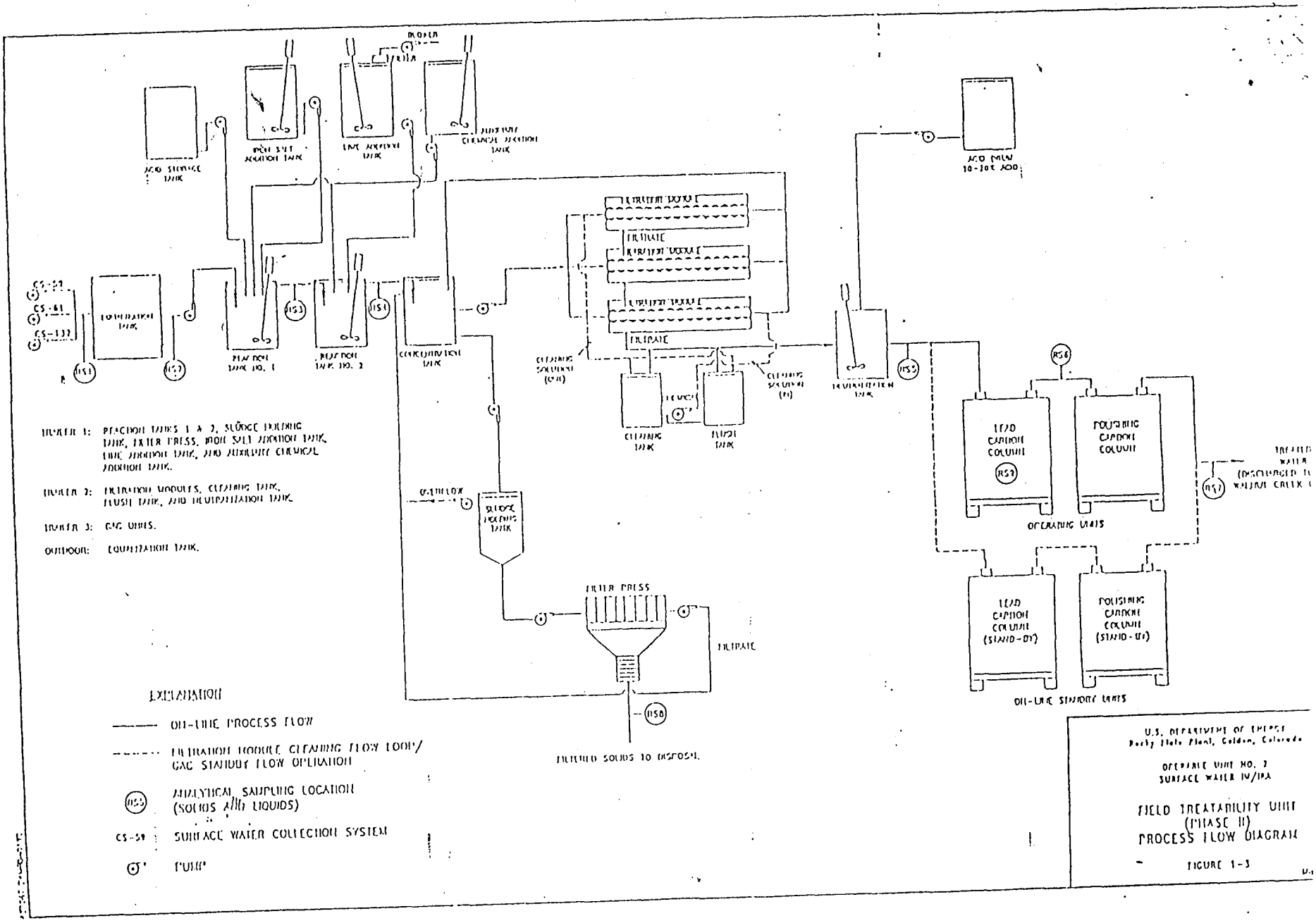
MCLs - Maximum Contaminant Levels - No Standards Listed

SDWA - Safe drinking Water Act

Volatile Organic Compounds Sampled for but not found:

Acetone	(F003)
Vinyl Chloride	(D043)

* (Based on weekly sample events for the third quarter of 1993.)
** (Based on sampling events from 05/92 to 2/11/92.)



U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO. 2
SURFACE WATER IM/IRA

FIELD TREATABILITY UNIT (PHASE II)
PROCESS FLOW DIAGRAM

FIGURE 1-3